

What is claimed:

1 1. A fill up and circulation apparatus for tubulars having a female thread and
2 at least one internal annular surface adjacent said thread comprising:
3 a mandrel having a passage therethrough;
4 a seal telescopically mounted to said mandrel, said seal engaging the
5 interior annular surface adjacent the female thread on the tubular.

1 2. The apparatus of claim 1, wherein said mandrel further comprises:
2 a shutoff valve in said passage of said mandrel; and
3 a thread adjacent the lower end of said mandrel, said thread on said
4 mandrel selectively engagable with the female thread on the tubular to allow well control
5 with said shutoff valve.

1 3. The apparatus of claim 1, further comprising:
2 a telescoping sleeve, said seal mounted adjacent a lower end thereof, said
3 sleeve configured in such a manner as to add a sealing force on said seal if internal
4 pressure in said mandrel passage is increased.

1 4. The apparatus of claim 1, further comprising:
2 a mud saver valve in said passage of said mandrel;

1 said passage in said mandrel comprises a lower and an upper end, said mud
2 saver valve presents less resistance to flow from said lower to said upper end than in the
3 opposite direction.

1 5. The apparatus of claim 4, wherein:

2 said mud saver valve comprises a flapper which pivots away from flow
3 going from said lower to said upper end.

1 6. The apparatus of claim 5, wherein:

2 said flapper comprises a port therethrough to permit flow from said upper
3 to said lower end when disposed in said passage.

1 7. The apparatus of claim 6, wherein said mud saver valve further comprises:

2 a biased shifting sleeve; said flapper engaging said shifting when flow is
3 from said upper to said lower end through said port to overcome said bias on said
4 sleeve.

1 8. The apparatus of claim 7, wherein said mud saver valve further comprises:

2 a seat in said shifting sleeve;

3 a ball retained movably in said shifting sleeve;

4 at least one port in said shifting sleeve;

1 whereupon application of pressure to said ball when on said seat from said
2 upper end of said mandrel said port is moved with respect to said ball to define a flow
3 passage which excludes said ball.

1 9. The apparatus of claim 8, further comprising:

2 a travel stop for said ball to allow said port in said shifting sleeve to move
3 beyond said ball to take said ball out of a flow path which includes said port in said
4 shifting sleeve.

1 10. The apparatus of claim 9, further comprising:

2 a second travel stop to allow flow from said lower end to said upper end
3 of said mandrel to displace said ball away from said seat and said port in said shifting
4 sleeve.

1 11. The apparatus of claim 1, further comprising:

2 a drain valve in fluid communication with said passage in said mandrel to
3 allow drainage fluid from said passage before said seal is disconnected from the tubular.

1 12. The apparatus of claim 3, wherein:

2 said telescoping sleeve comprises a piston acted upon by a spring or fluid
3 pressure to bias said piston in a first direction, whereupon application or removal of

1 applied pressure to said piston at a single location causes said piston to move in a
2 second direction opposite said first direction.

1 13. The apparatus of claim 2, wherein:
2 said seal is removably mounted to a telescoping sleeve such that retraction
3 of said sleeve exposes said thread on said mandrel for makeup to the female tread on
4 the tubular.

1 14. The apparatus of claim 13, wherein:
2 said telescoping sleeve is completely removable from said mandrel.

1 15. The apparatus of claim 13, wherein:
2 said telescoping sleeve can be adjusted to a plurality of initial positions on
3 said mandrel prior to extension thereof.

1 16. The apparatus of claim 4, comprising:
2 a telescoping sleeve, said seal mounted adjacent a lower end thereof, said
3 sleeve configured in such a manner as to add a sealing force on said seal if internal
4 pressure in said mandrel passage is increased.

1 17. The apparatus of claim 16, comprising:

1 a drain valve in fluid communication with said passage in said mandrel to
2 allow drainage fluid from said passage before said seal is disconnected from the tubular.

1 18. The apparatus of claim 17, wherein:

2 said telescoping sleeve comprises a piston acted upon by a spring or fluid
3 pressure to bias said piston in a first direction, whereupon application or removal of
4 applied pressure to said piston at a single location causes said piston to move in a
5 second direction opposite said first direction.

1 19. The apparatus of claim 18, wherein:

2 said seal is removably mounted to a telescoping sleeve such that retraction of said
3 sleeve exposes said thread on said mandrel for makeup to the female tread on the
4 tubular.

1 20. The apparatus of claim 19, wherein:

2 said telescoping sleeve can be adjusted to a plurality of initial positions on
3 said mandrel prior to extension thereof.

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